

Specifications for the Hydrolab MS5 Minisonde and Surveyor Data Display with 10m Cable and Accessories or Equivalent:

The water quality monitoring instrument is to be used for multiple, in situ, water quality measurements from the stream/river surface to the bottom or discrete sampling of each site. This instrument must be capable of simultaneous measurement and recording of the following parameters: depth, temperature, dissolved oxygen, pH, and conductivity. Measured data must be available for immediate viewing and must also be stored in the memory of the display unit and downloadable by personal computer.

To fulfill requirements, the **data display** must incorporate the following features:

1. Waterproof housing construction
2. Field graphing
3. Backlight display screen allowing view up to 24 parameters
4. Storage of up to 375,000 readings
5. PC adapter cable
6. Nickel metal hydride rechargeable battery and charger
7. 2-Year warranty
8. Manual

In addition, please include the following accessory: Cigarette Lighter adapter

To fulfill requirements, the **submersible unit** must incorporate the following features:

1. Heavy plastic construction with stainless steel hardware and 120,000 KB internal memory
2. double o-ring seals
3. Calibration and storage cups
4. Maintenance kit
5. Expansion ports for parameter additions
6. Luminescent Dissolved oxygen sensor
7. pH sensor with flowing junction reference
8. 0-25 meter Depth sensor
9. Open cell graphite conductivity sensor
10. Weighted sensor guard
11. 10-m Detachable Cable
12. Manual

Sensors of the submersible unit must conform to the following performance specifications:

	<u>Range</u>	<u>Accuracy</u>	<u>Resolution</u>
Temperature	-5 to 50°C	± 0.10°C	0.01°C
Specific Conductance	0 to 100 mS/cm	± 0.001 mS/cm	4 digits
pH	0 to 14 units	± 0.2 units	0.01 units
L-DO	0 to 20 mg/l	± 0.1 mg/l	0.01 mg/l
Depth	0 to 25 m	± 0.3 m	0.1 m

The detachable, 10 meter cable connecting the display and submersible unit must be encased in a rugged polyurethane jacket with non-metallic, watertight connectors.